Remarks

Claims 1-50 are presently at issue in this pending patent application. Claims 1, 2, 8, 10, 13, 21, 29 and 34-50 have been amended. No new matter has been added. Reconsideration of the pending Claims and allowance is respectfully requested in view of the following comments.

Drawings Objection

Fig. 9 of the drawings was objected to as being inconsistent with the specification. Pursuant to 37 C.F.R. 1.121(d), Applicant respectfully submits one replacement sheet of drawings to correct the inconsistencies identified. Specifically, the BusinessService class 48 has been amended to include Dirlister 172. In addition, Dirlister 172 has been amended to include Dirlister_Request 174 and Dirlister_Reply 176. Further, back-end system layer 18 was added to include datafile 178. Also submitted is an annotated marked-up copy of Fig. 9, indicating the amendments that were made. Applicant has amended Fig. 9 to eliminate the inconsistency and respectfully request entry of amended Fig. 9 and removal of the objection to Fig. 9.

Specification Objections

Applicant has amended the paragraphs identified by the office action mailed August 11, 2004 as required. Accordingly, Applicant respectfully request removal of the objection to the disclosure.

The 35 U.S.C. 112 second paragraph Claim Rejections

Claims 1-50 were rejected pursuant to 35 U.S.C. 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the invention. Applicant has amended Claims 1, 10, 13, 21 and 29 to eliminate the terms "as a function of." The amendments to Claims 1, 10, 13, 21 and 29 do not change the scope of the claims, should not be construed as narrowing amendments and were not made to overcome the cited prior art. Claims 34–40 were amended to remove the term "software." Accordingly, Claims 34-40 are now broader than previously un-amended claims 34-40, and were not amended to overcome the cited prior art. Claim 41 was amended to replace the terms "business service layer" with the term "system." The amendment to Claim 41 also required amendment to Claims 42-50 to maintain antecedent basis. Amended Claims 41-50 are now broader in scope than previously un-amended claims 41-50. Claims 41-50 were not amended to overcome the cited prior art and the amendments to Claims 41-50 should not to be construed as narrowing amendments. Claims 2 and 8 were amended to correct the scrivener's errors identified in the office action. Amended Claims 2 and 8 are at least as broad as previously un-amended claims 2 and 8. Accordingly, the amendments to Claims 2 and 8 should not be construed as narrowing amendments and the amendments were not made to overcome the cited prior art.

All of Claims 1-50 are now clear and definite. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. 112 second paragraph rejection of Claims 1-50.

The 35 U.S.C. 102(e) Claim Rejections

Pending Claims 1-6, 8-25 and 27-40 stand rejected pursuant to 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,430,624 to Jamtgaard et al. (hereinafter "Jamtgaard"). Applicant respectfully traverses this rejection since Jamtgaard fails to teach each and every feature of the Claims.

Claims 1-6 and 8-12

Claim 1 provides a method of interfacing a front-end systems layer with a back-end systems layer using a self describing data structure. The method includes receiving a request from a front-end systems layer, translating the request, and executing custom application code to access data within a back-end systems layer based on the translated request. The method also includes receiving data in response to the translated request from the custom application code, and translating the data to a format defined in the request.

Jamtgaard teaches a system for delivering web content to a variety of devices having different display formats, screen sizes and/or input/output formats. (Col. 3 lines 66-67 and Col. 4 lines 1-7) The system of Jamtgaard uses a translation server 12 to take information directly from a content provider's website and customize the format of the information to be compatible with the display formats, screen sizes and/or input/output formats of the device, such as a cell phone or Palm OS device, that is requesting web content from a content provider. (Col. 4 lines 58-67 and Col. 5 lines 1-6) When a device initiates a request for content from a content provider, the translation server of Jamtgaard determines whether the device making the request is a PC or a non-PC device, since no customization is required for display of web content on a PC. (Col. 7 lines 13-30)

If the device is not a PC, the translation server operates like a webserver to get the page information of the web content from the content provider's website and customize the format of the information for the non-PC device. (Col. 7 lines 31-44) The translation server uses the header information in a request from the device to determine a protocol and a browser configuration of the device making the request so that the format of the page information can be properly customized. (Col. 8 lines 31-35) In addition, the translation server uses a URL address of the content provider that is included in the request to retrieve the requested information from the content provider. (Col. 8 lines 26-29 and Col. 8 lines 37-45) The requested information is then used by the translation server to generate a device and protocol specific set of cards that are place in a presentation shoe and transmitted to the device that made the request. (Col. 8 lines 46-61)

In contrast, Claim 1 provides that a request is received from a front-end systems layer and translated. In addition, Claim 1 provides that custom application code is executed to access data within a back-end system layer based on the translated request. Jamtgaard does not teach execution of custom application code to access data within a back-end systems layer based on a translated request, but instead simply teaches that a URL address of a content provider that is included in the request is used to retrieve data from the identified content provider. In fact, Jamtgaard teaches only that the devices make requests in wireless markup language(WML). (Col. 6 lines 54-63) As detailed in Applicant's specification on page 6 lines 1-15 and Fig. 2, any of a plurality of presentation formats from various delivery technologies can be used to initiate user requests. The user requests are translated and custom application code is executed based on the translated request to access data within the back end system. This is directly opposite of the compatible requests taught by Jamtgaard that require no such translation.

In the office action, Col. 4 lines 58-62 of Jamtgaard were cited as teaching translation of a request. However, in the cited portions, Jamtgaard is actually teaching translation of content provide from a content provider in response to a request. Even if one was to somehow construe the information provided from a content provider as a request, which it clearly is not, Jamtgaard cannot teach that data is received in response to the translated request as described in Claim 1, since Jamtgaard teaches that the only data received in response to a request is the information provided from the content provider. In addition, translating the request into a document object model document to represent an input message as described in Claim 4 cannot be taught by #28 in Fig. 3 of Jamtgaard as asserted in the office action since #28 relates to processing of web content provided in response to a request, which clearly has nothing to do with translating the request.

In the office action, it was also asserted that a layout processor #62 included in the translation server is custom application code that is executed based on the translated request as described in Claim 1. In contrast, Jamtgaard teaches that the layout processor is part of a layout engine #44 that converts web content received from a content provider into a device and protocol specific format of the device making the request. (Col. 8 lines 4-6 and Col. 8 lines 62-67) Accordingly, the layout processor of Jamtgaard has nothing to do with

processing requests and is dedicated solely to processing responses to a request. In addition, limiting the translated request to representation as at least one of integer, long, Boolean, string and group fields as described in Claim 5 and generating a plurality of fields as a function of tags provided in a request as described in Claim 6 cannot be taught by the "group" of Fig. 9A of Jamtgaard as asserted in the office action, since Fig. 9A of Jamtgaard teaches conversion of web content provided from a website in response to a request, not translation of the request that triggered such a response.

For at least the foregoing reasons, Jamtgaard does not teach, suggest or disclose the features disclosed in Claims 1, 4, 5 and 6. In addition, dependent Claims 2-3 and 8-12 depend from Claim 1, and are also patentable over Jamtgaard for at least the same reasons. Applicant therefore respectfully requests withdrawal of the 35 U.S.C. 102(e) rejection of Claims 1-6 and 8-12.

Claims 13-20

Amended Claim 13 provides a method of leveraging extensible markup language technology to interface a front-end systems layer with a back-end systems layer. The method includes receiving a request initiated with a delivery technology, identifying the value of a request name parameter from the request, and translating the request to an input message. The input message comprises a root element and a plurality of sub elements. The method also includes initiating the retrieval of data based on the request name parameter.

Jamtgaard, on the other hand, fails to teach translation of a request to an input message as described in Claim 13 and instead teaches simply that a URL address from the request is used as previously discussed. Since Jamtgaard fails to teach translation of a request, he could not possibly teach translating the input message that comprises a root element and a plurality of sub elements as further described in Claim 13.

In the office action, it has been asserted that "the input connection from #60 to #62 re: XML Document" in Fig. 5 of Jamtgaard teaches such translation. Applicant respectfully traverses this assertion since Jamtgaard fails to teach or described anywhere in the specification conversion of a request to an XML document. The prior art reference must describe the claimed invention sufficiently to have placed the claimed invention in the

possession of a person of ordinary skill in the field of the invention. *Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339 (Fed. Cir. 2000) In addition, simply including the terms "XML document" on a drawing does not in any way teach translation of the request to an input message that comprises a root element and a plurality of sub elements as described in Claim 13. In fact, Jamtgaard teaches that web content may be received from Internet content provider's website as HTML data with the content connection handler 40, and then translated into a completely customized format with the layout processor 62, etc. (Fig. 5, Col. 4 lines 58-66, Col. 9 lines 48-63) Accordingly, the terms "XML document" that is illustrated in Fig. 5 of Jamtgaard merely illustrate the transfer of a web page in the form of an XML document that is received from a content provider and converted by the translation server as previously discussed.

Jamtgaard also fails to teach initiating the retrieval of data based on a request name parameter as further described in Claim 13. In contrast, as previously discussed, Jamtgaard teaches retrieval of web content using a URL address included in the request. It follows that Jamtgaard also fails to teach executing custom application code corresponding to a request name parameter as described in Claim 17 since Jamtgaard fails to teach a request name parameter at all.

Jamtgaard also fails to teach setting a root element of an input message that was translated from a request to a message name as described in Claim 15. In the office action, it was asserted that #300 in Fig. 17 of Jamtgaard taught the features of Claim 15. However, Fig. 17 of Jamtgaard describes a tree structure for a web page, which is clearly not a request that has been translated to an input message as described in Claims 13 and 15. Jamtgaard also fails to teach creating a document object model document when translating a request to an input message as described in Claim 16, since Jamtgaard fails to teach translation of a request as previously discussed.

For at least the foregoing reasons, Jamtgaard does not teach, suggest or disclose the features disclosed in Claims 13-17. In addition, dependent Claims 18-20 depend from Claim 13, and are also patentable over Jamtgaard for at least the same reasons. Applicant therefore respectfully requests withdrawal of the 35 U.S.C. 102(e) rejection of Claims 13-20.

Claims 21-25 and 27-33

Claim 21 provides a method of operating a business services application for retrieving data with delivery technologies. The method includes developing custom application code in a subclass of a BusinessService class. The custom application code is responsive to a request for data initiated by the delivery technologies. The method also includes translating the request to a first document object model document with an ApiService class and selectively limiting the data structure of the first document object model document with a Message class and a Field class. In addition, the method includes executing the custom application code to retrieve data based on the first document object model document, and reading data into a second document object model document with the ApiService class. Selectively limiting the data structure of the second document object model document with the Message class and the Field class, and translating the second document object model document with the ApiService class based on the delivery technology is also included in the method.

In contrast, Jamtgaard does not teach translation of a request to a first document object model as described by Claim 21. In addition, Jamtgaard does not teach translating the request to a first document object model document as also described in Claim 21. As further described in Claim 21, Jamtgaard also does not teach selectively limiting the data structure of the first document object model document with a Message class and a Field class. In the office action, it has been asserted that #62 in Fig. 5 of Jamtgaard teaches translation to a first document object model. As previously discussed, the layout processor #62 in Jamtgaard is for converting the content of a web page to be compatible with an end device as part of a response, and has no function related to a request.

The office action has further asserted that #28 in Fig. 3 of Jamtgaard teaches translating the request to a first document object model document. As also previously discussed, Fig. 3 of Jamtgaard is related to conversion of content received from a content provider and again has no relevancy to the translation of a request. In addition, the office action has asserted that selectively limiting the data structure of the first document object model document with a Message class and a Field class is taught by the tree structure depicted in Fig. 14 of Jamtgaard. Applicant respectfully traverses this assertion since the tree

structure taught by Jamtgaard in Fig. 14 relates to transmitting to a device content received from a content provider, not a request. (Col. 16 lines 37-39) Further, the tree structure taught by Jamtgaard is for a tree representation of a web page from a website so that the content of the page can be represent relationally to allow for re-formatting of the content in accordance with the device receiving the content (Fig. 12, Col. 14 lines 61-67) Clearly, a request is entirely different from a web page. In addition, Jamtgaard fails to teach selectively limiting the data structure of a first document object model document with a message class and a field class since the whole idea behind the teachings of Jamtgaard is to represent an entire web page with a tree structure, not limit the data structure as described in Claim 21.

Jamtgaard also fails to teach executing the custom application code to retrieve data based on the first document object model document as further described in Claim 21. The office action has asserted that "the connection of #44 and #62 re: Device Info and Shoe Id" teach such features. Applicant respectfully traverses this assertion since both item #44 and #62 are clearly involved only in the conversion of web content retrieved from a content provider in response to a request. It therefore follows that Jamtgaard fails to teach any of the features described in Claims 22-25 that further describe selectively limiting the data structure, nor can Jamtgaard teach representing an input message with the first document object model as described in Claim 27.

For at least the foregoing reasons, Jamtgaard does not teach, suggest or disclose the features disclosed in Claims 21-25 and 27. In addition, dependent Claims 28-33 depend from Claim 21, and are also patentable over Jamtgaard for at least the same reasons. Applicant therefore respectfully requests withdrawal of the 35 U.S.C. 102(e) rejections of Claims 21-25 and 27-33.

Claims 34-40

Claim 34 provides an e-commerce architecture for providing a framework to interface delivery technologies with data. The e-commerce architecture includes a server computer operable to execute instructions to convert a request to an input message in a predetermined extensible markup language format. The input message comprises a plurality of request parameters. The server computer is operable to execute instructions to retrieve data as a

function of the request parameters. In addition, the server computer is operable to execute instructions to create an output message in a predetermined extensible markup language format. The output message comprises the data retrieved. The server computer is also operable to execute instructions to convert the output message to a format indicated by the request.

As previously discussed, Jamtgaard fails to teach a server operable to execute instructions to convert a request to an input message in a predetermined extensible markup language format as described in Claim 34. In addition, it follows that Jamtgaard fails to teach that the input message comprises a plurality of request parameters since there is no teaching in Jamtgaard of conversion of a request to an input message. Jamtgaard also fails to teach that the server is operable to execute instructions to retrieve data as a function of the request parameters. In contrast, Jamtgaard retrieves data with a single unconverted request parameter, namely a URL address, as previously discussed. The office action identifies cookies as parameters, however, the cookies described by Jamtgaard are part of the web content retrieved in response to a request, not request parameters included in an input message as described in Claim 34. It follow that Jamtgaard also fails to teach any of the methods described in Claims 36, 37, 38 and 40 related to requests.

For at least the foregoing reasons, Jamtgaard does not teach, suggest or disclose the features disclosed in Claims 34-38 and 40. In addition, dependent Claim 39 depends from Claim 34 and is also patentable over Jamtgaard for at least the same reasons. Applicant therefore respectfully requests withdrawal of the 35 U.S.C. 102(e) rejections of Claims 34-40.

The 35 U.S.C. 103(a) Claim Rejections

Claims 7 and 26 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of Jamtgaard and further in view of *Take and in-depth look at the Java Reflection API*, Chuck McManis, Java World, p. 1-11, September 1997 (hereinafter "McManis"). In addition, Claims 41-50 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of the combination of Jamtgaard and *Java Examples in a Nutshell: A tutorial Companion to Java in a Nutshell*, David Flanagan, p. 20-26 O'Reilly & Associates, Inc. 1997 (hereinafter "Flanagan").

Claims 7 and 26

Claims 7 and 26 depend from independent Claims 1 and 21, respectively. Accordingly, for at least the previously discussed reasons, all of the claim features disclosed by Claims 7 and 26 are not taught or suggested by the cited combinations of the prior art. Thus, a *prima facie* case of obviousness has not been established for Claims 7 and 26. Accordingly, Applicant respectfully requests the removal of the 35 U.S.C. §103(a) rejection of Claims 7 and 26.

Claims 41-50

Claim 41 describes a system for leveraging extensible markup language technology to provide an interface between a back-end systems layer and a front-end systems layer. The system includes a server computer, an ApiService class operable within the server computer to direct the translation of a request to an input message and a document object model class operable within the server computer to represent the input message as a document object model document. In addition, the system includes a Message class and a Field class operable within the server computer as a wrapper of the document object model class to restrict manipulation of the document object model document. The system also includes a BusinessService class operable within the server computer to direct the execution of custom application code as a function of the input message.

In contrast, Jamtgaard fails to teach an ApiService class operable within the server computer to direct the translation of a request to an input message as described in Claim 41. As previously discussed, Jamtgaard does not teach any translation of a request. In addition, Jamtgaard does not teach a document object model class operable within a server computer to represent the input message as a document object model document as also described in Claim 41. As previously discussed, Jamtgaard represents web pages received from content providers as document object models, not an input message as described in Claim 41. Neither Jamtgaard nor Flanagan teach, suggest or disclose a Message class and a Field class operable within the server computer as a wrapper of the document object model class to restrict manipulation of the document object model document as further described in Claim

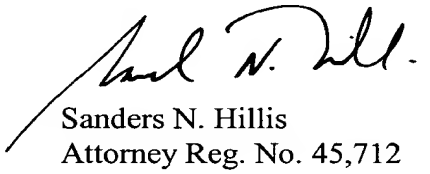
41. In fact, with regard to creation of a document object model of a web page, Jamtgaard teaches away from restricting manipulation with anything, by teaching that the document object model should include all the features present in the web page as previously discussed.

Neither Jamtgaard nor Flanagan teach, suggest or disclose a Fldtypes class that is operable within the server computer and the Fldtypes class comprises definitions of the format of datatypes for fields within the input message as described in Claim 45. As previously discussed, Jamtgaard does not teach, suggest or disclose translation of a request to an input message so Jamtgaard cannot teach, suggest or disclose definitions of format of datatypes for fields within an input message as described in Claim 45. Also, neither Jamtgaard nor Flanagan teach, suggest or disclose that a document object model document comprises a plurality of field names, the field names selectable with a mode debug flag as one of a first field name and a second field name as described in Claim 46, nor definition of first and second filed name in a MESSAGEDEFINITION class as described in Claim 47. In fact, neither Jamtgaard nor Flanagan are concerned with or mention a mode debug flag as described in Claim 46. Further, neither Jamtgaard nor Flanagan teach, suggest or disclose a BusinessService class that comprises a subclass of custom application code responsive to the request as described in Claim 50. As previously discussed, Jamtgaard does not describe any custom application code responsive to the request and therefore cannot teach, suggest or disclose a subclass as described in Claim 50.

Accordingly, for at least the previously discussed reasons, all of the claim features disclosed by Claims 41, 45-47 and 50 are not taught or suggested by the cited combination of the prior art. Thus, a *prima facie* case of obviousness has not been established for Claims 41, 45-47 and 50. Dependent Claims 43, 44, 48 and 49 depend from independent Claim 41, and therefore a *prima facie* case of obviousness has also not been established for Claims 43, 44, 48 and 49. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. §103(a) rejection of Claims 41-50.

The application is believed to now be in condition for allowance, which is respectfully requested. Should the Examiner deem a telephone conference to be beneficial in expediting examination and/or allowance of this application, the Examiner is invited to call the undersigned attorney at the telephone number listed below.

Respectfully Submitted,



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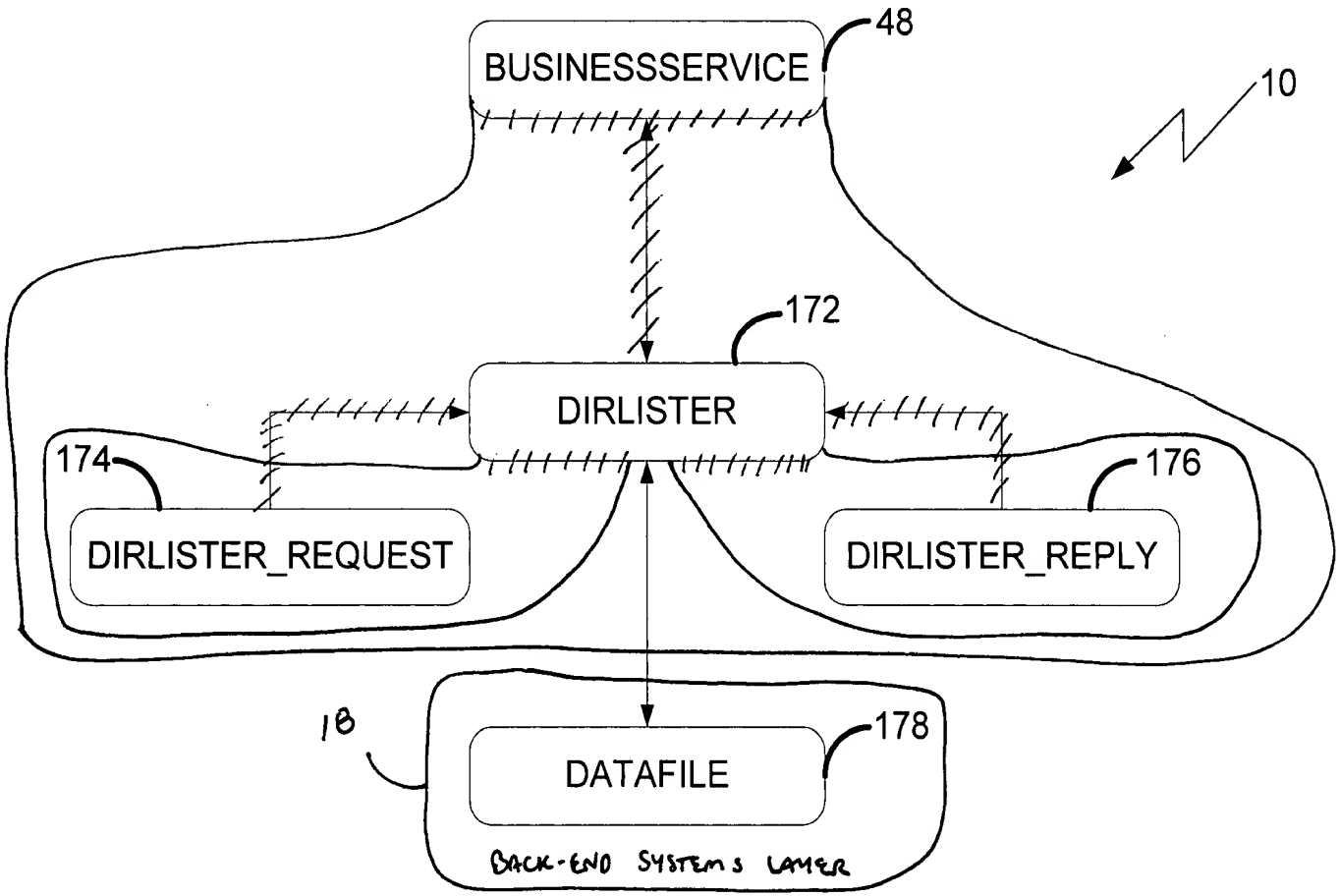

FIG. 9